



_ioLabs  Transforming Visions into Reality

ioLabs AG
Experts in Digital Twin and
Data Management Innovation

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Who we are

ioLabs AG

- AEC agency
- founded in 2017 in Switzerland
- team of 15 software developers, engineers and CAD specialists

Clients

- based mostly in the DACH region
- representatives of construction, pharmaceutical and engineering industry
- from public as well as private sector

Unique

- first certified Autodesk Forge Integrator in Switzerland
- Autodesk Development Partner
- Esri Development Partner

Quality

- ISO 9001 - Quality Management
- ISO 27001 - Information Security Management
- Professional business liability insurance



Digital twin and 3D model as core

3D models are the core of our business, serving as the single source of truth (SSOT). We create them from scratch, manage them with precision, and work programmatically for utmost effectiveness. These models encapsulate adaptability, allowing us to seamlessly integrate them into our processes, ensuring innovation and accuracy in every endeavor.



Programmatic data management

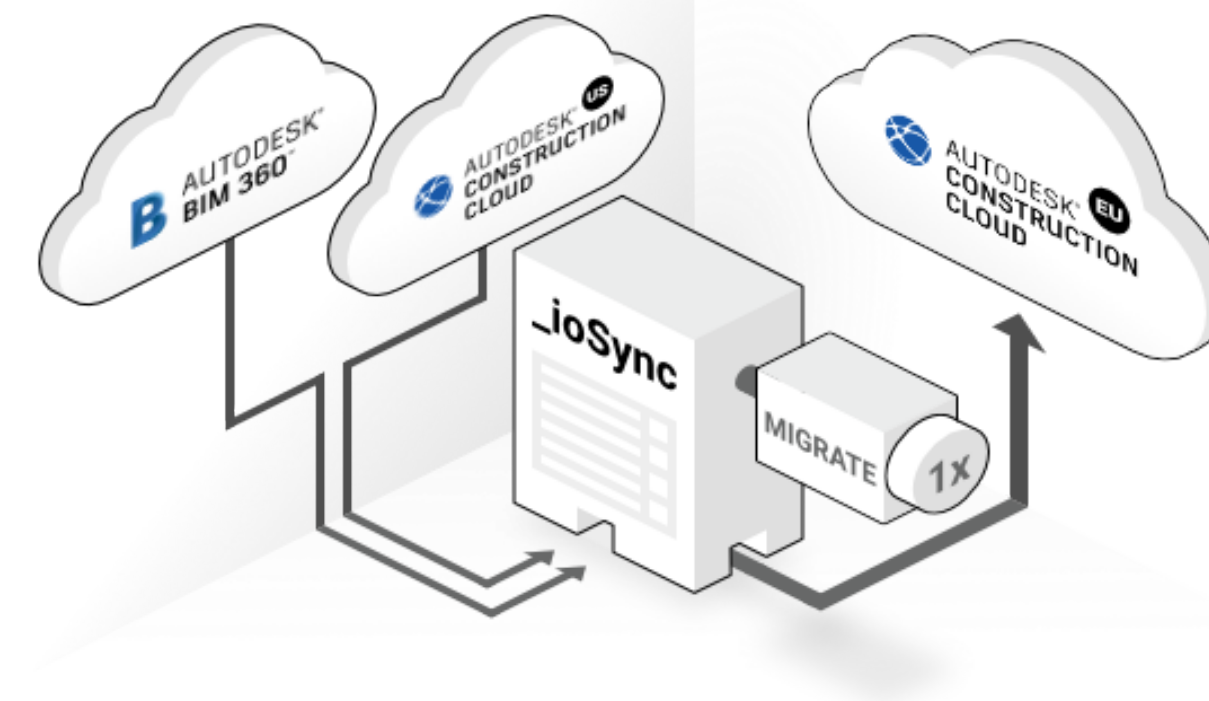
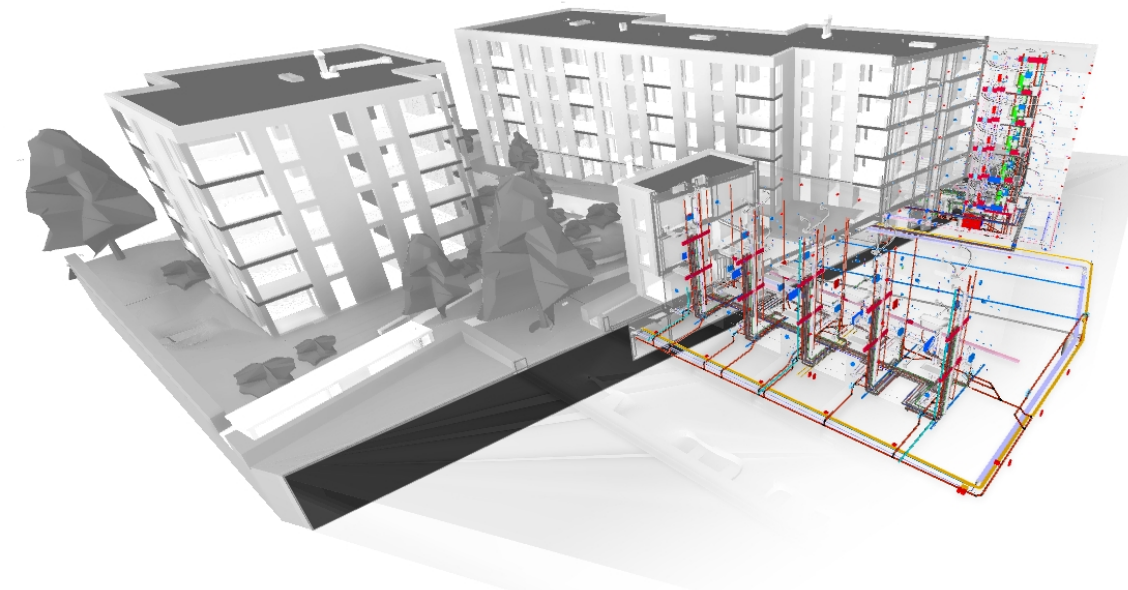
Data management through automated processes forms the backbone of our operations, empowering us to connect vast silos of unstructured data. We excel at uncovering the logical structure and accessibility within this data, ensuring efficient handling of diverse datasets. See ioSync.

Our mission

Pioneering **innovative software development**, we craft efficient digital tools for web and stand-alone apps **powered by ioFramework**.

Our focus is on **significant budget savings** and a **user-centric experience**. Specializing in creating **digital twins** through precise **3D modeling**, we lead in BIM processes to revolutionize project efficiency.

Strengthening digitalization models with **programmatic data management**, we deliver a pragmatic and visionary digital future.



■ Custom Software for AEC

Crafting innovative digital tools as web based and stand-alone apps that cater to the needs of real people and projects, both for the present and the future. Efficient and rapid development for significant budget savings through the usage of own ioFramework.

■ BIM & Digital Twin

Enabling the development of digital twins through comprehensive model creation, including the establishment of families and libraries for enhanced digital representation.

Consulting and implementing robust BIM processes to enhance project efficiency by simplifying planning and execution - streamlined methodologies have a transformative impact on project success.

■ Data processing magic

ioLabs offers advanced data management solutions tailored for multiple platforms in the AEC industry. It enables organizations to streamline data workflows, enhance collaboration, and improve project efficiency. The service includes data migration, synchronization, backups, and advanced sorting using AI, catering to the specific needs of projects. ioLabs has worked with notable organizations like Implenia AG and ETH Zürich, delivering customized data management solutions to improve efficiency and project outcomes.

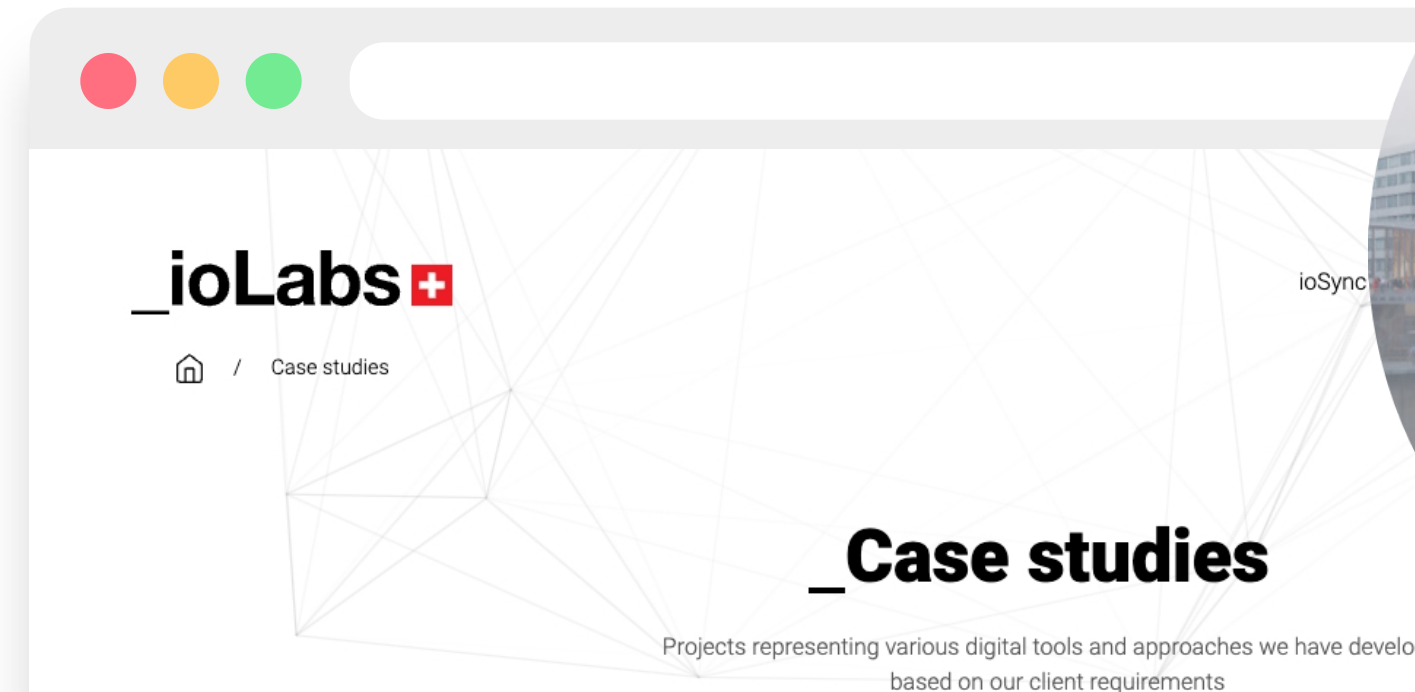
Case studies

Explore our projects

We aim to showcase our expertise through a selection of projects that utilize BIM methodologies, technologies such as Autodesk Forge and Esri, and custom software solutions. Our projects also incorporate recent advancements like AI and VR. These examples illustrate our approach to integrating various methods and technologies to meet our clients' requirements.

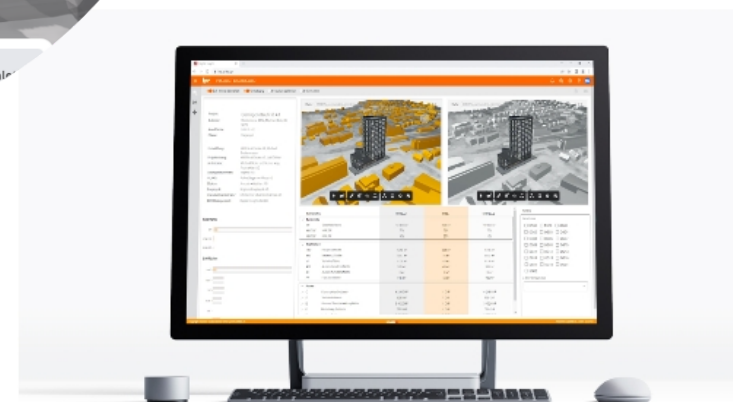
Digital Twin Campus Lostorf

An innovative digital tool on the suissetec Campus for visually appealing presentation of marketing information on GIS and BIM levels. In collaboration with Büro für Bauökonomie AG, we have created our vision of a digital twin that sets new standards for sustainable architecture and sponsorship concepts.



Campus Lostorf

Technologies characterize the suissetec Campus in a digital twin to create the interface between interactive and an exciting sponsorship concept as well as future- and innovations. Experience the future of construction.



HRS Autodesk Forge

Interactive project dashboard for HRS Holding AG

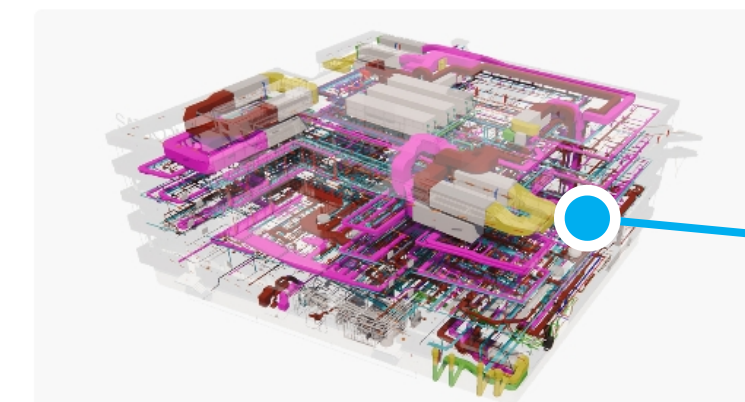
Together with our partner Digital Insights ioLabs created sophisticated interactive dashboard based on real construction data stored in CDE (BIM 360 Docs).



BIG Bjarke Ingels Group BIM Prague

BIM consultancy Vltava Philharmonic Hall in Prague

ioLabs BIM consultancy: Strategic support throughout the project's lifecycle by implementing BIM practices into the workflow.



Custom Software Consultancy BIM Revit MEP C# Plancal Nova

Revit BIM Model from Plancal Nova documentation

Effortless and seamless transfer of Plancal Nova documentation into a fully attributed Revit BIM model.

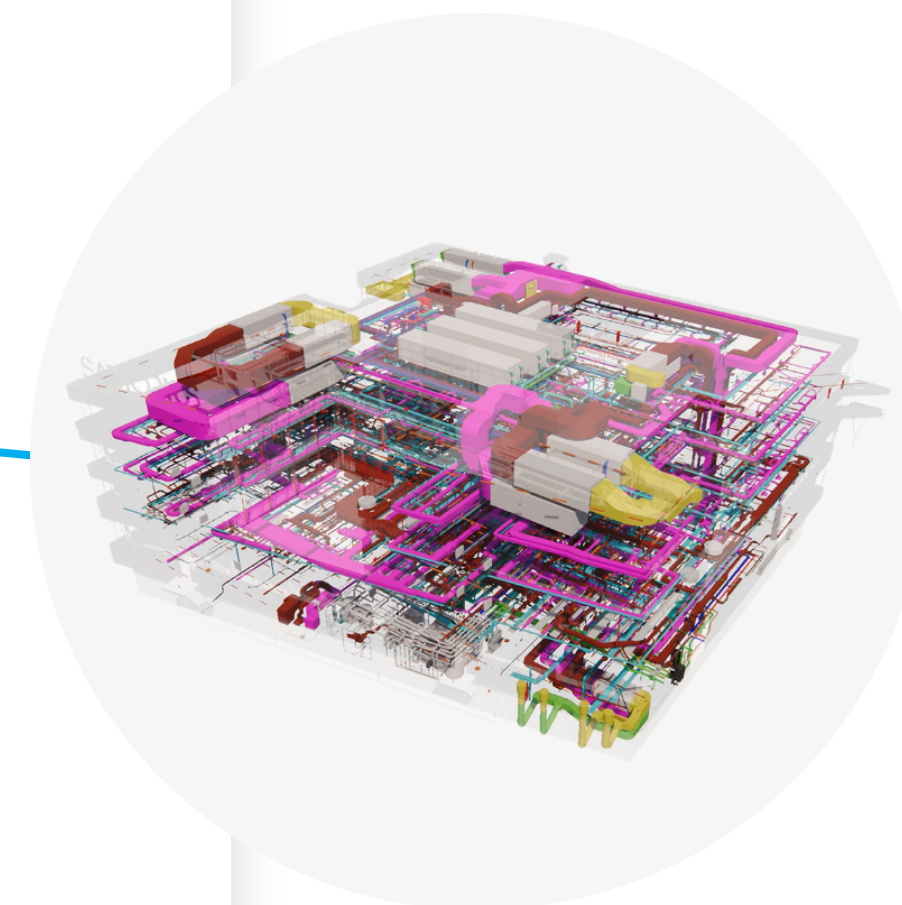


BIM consultancy Vltava Philharmonic Hall in Prague

Since 2022, ioLabs has been working with IPR Prague on the Vltava Philharmonic Hall project designed by BIG (Bjarke Ingels Group), offering a range of services from BIM consulting to programmatic data management.

Revit BIM Model from Plancal Nova documentation

Efficiently transforming flawed Plancal Nova documentation into a fully attributed Revit BIM model, we employed a meticulous process involving IFC format transfer, script automation, and meticulous metadata handling, yielding 30 interconnected Revit models.



ioSync

1

Data Operations

ioSync automates and simplifies data management across various construction and engineering platforms. Depending on the regularity, direction and scope of the operation, we distinguish between data **synchronization, migration, archiving and backup.**

2

Advanced Operations

Utilizes AI for content modification, document sorting, and optimizing data paths.

3

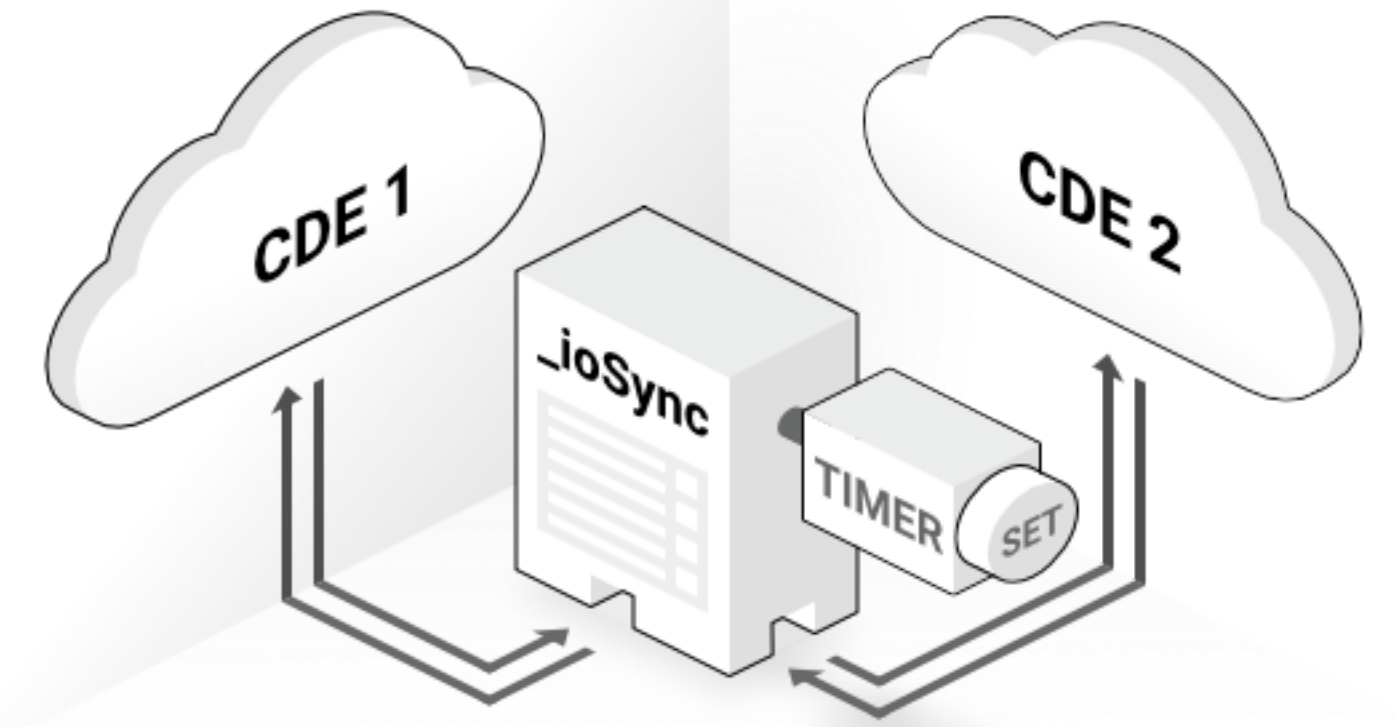
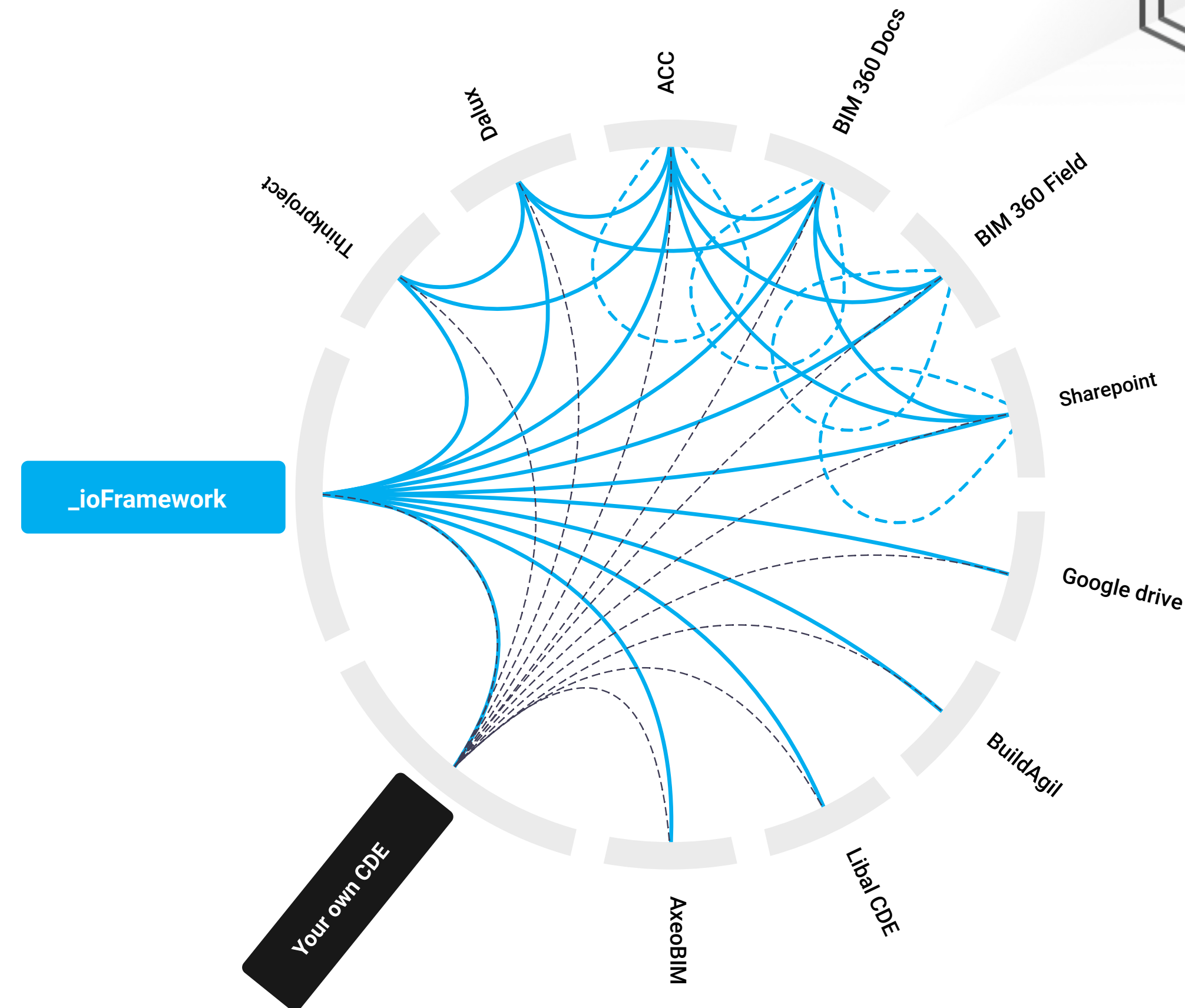
Compatibility

Supports a wide range of platforms including Autodesk Construction Cloud, SharePoint, Google Drive and others.

4

Customization

Provides a base custom solutions and connectors for any CDE or data source you prefer, along with any data operation you require.





ioFramework

1

Rapid Development

ioFramework accelerates application development with a comprehensive set of tools and libraries, suitable for projects across various platforms.

2

Cross-Platform Compatibility

It supports a wide range of package types for seamless application integration, emphasizing .NET, Typescript, and React technologies.

3

Customization and Support

Offers customization options through feature requests while providing a huge benefit to all customers by keeping the packages up-to-date and much cheaper to maintain.

The screenshot illustrates the workflow of using ioFramework packages in an IDE. It is divided into three numbered steps:

- 1. Get nuget package:** Shows the NuGet Package Manager interface with 'IoLabs Forge' highlighted in the search results.
- 2. Use in your code:** Shows a C# code snippet in an IDE. The code includes the following namespaces:


```
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;
using IoLabs.Forge.Api;
using IoLabs.Forge.Response;
using IoLabs.Forge.Storage;
using IoLabs.Forge.Storage.Model;
```

 The code defines a namespace `IoLabs.Dashboard.Poc.Services` and a class `MyService` with a method `GetFiles()` that uses `apiProvider.FoldersApi.GetFolderContents`.
- 3. Read documentation directly in IDE:** Shows a documentation window for the `GetFolderContents` method. The documentation includes:
 - Signature:** `public abstract FolderContentsResponse GetFolderContents(string projectId, string folderUrn, bool includeHidden = false, list<string> filterType = null, list<string> filterId = null, list<string> filterExtensionType = null, int? pageNumber = null, int? pageLimit = null, ForgeAuthorizationContextType? contextType = null)`
 - Params:**
 - `projectId` – Forge project ID
 - `folderUrn` – Forge folder urn
 - `includeHidden` – Include items and folders that are hidden or were deleted from BIM 360 Docs project
 - `filterType` – Filter by the 'type' of the 'ref' target (optional)
 - `filterId` – Filter by the 'id' of the 'ref' target (optional)
 - `filterExtensionType` – Filter by the extension type (optional)
 - `pageNumber` – Specify the page number (optional)
 - `pageLimit` – Specify the maximal number of elements per page (optional)
 - `contextType` – Authorization context type, default is null which means mixed
 - Returns:** `JsonApiCollection`
 - Exceptions:** `ForgeApiException` – Thrown when fails to make API call

Who bets on ioFramework

Quality And Sustainability

■ ISO 9001

Reflects our commitment to superior quality, customer satisfaction, and continuous improvement, ensuring excellence in every aspect.

■ ISO/IEC 27001

Showcases our dedication to robust information security, safeguarding data, and ensuring trust in every business interaction.



■ Ecological Commitment

For ioLabs AG, sustainability and ecology are of great importance, and we are actively committed to environmental conservation. Therefore, we have partnered with Plant-for-the-Planet to support global tree planting initiatives, reflecting our commitment to sustainability.

■ Employee Engagement

We encourage each member of our staff to be involved in environmental causes by matching their donations to conservation organizations.





Contact

If you have questions, need any general information, quote or just want to say hi, please drop us an email or give a quick call. It will be our honor to help you.



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Schedule meeting



Partners

